

- 197 be of great interest could it be ascertained whether Tzeltal really is the parent tongue of Zotzil, or whether Zotzil, with its marked vocalic individuality, has not corrupted Tzeltal from an original form more closely allied to the lowland languages.
- 194 The alphabet used here is modeled on that of Dr. Tozzer,* with a few changes and some additions. It would, perhaps, be possible to enlarge the range of *k* sounds yet further, but the result would be only to make the present records needlessly difficult of comparison with the older lists.

PHONETICS. The languages recorded here closely resemble Maya itself in their phonetic system, although a slightly wider range of sounds, especially in the vowels, is found. This may in part be due to uncertainties of pronunciation; certain sounds occur differently in the same word spoken by different men, e. g., *ts'* and *tc'* in Tzeltal, final *'* and *k* in Yocotan Chontal. If enough Indians could be questioned, a normal form could undoubtedly be derived from many of these alternates. The presence of the *k* fortis (*k'*), velar *k* (*q*), and the palatalized *g* (*x*), with the frequent stop (*'*), gives a wider range of *k* and *g* sounds than in Maya.† These, with the fortis forms of *t* and *p*, and the dental surds *ts* and *tc*, make the languages distinctly harsh and unpleasant to the ear. In addition, the Tzeltal and Chaneabal have an ugly, whining tone in ordinary conversation, very much increased when emphasis is desired. Yocotan has an unusual range of nasals.

- 193 CONSONANTS. The system of consonants includes one velar, three
194 palatals, alveolars, and a double set of dentals, both surd and fortis, a dorsal, nasal, and labials. It is difficult to distinguish between *b*, *p*, and *w*, although they are probably not interchangeable.‡ In Jacalteca the *p* at first appeared to be a *w*, but was found to be actually distinct; the sound is almost impossible to imitate.

Mention should be made of the added letter *r*, already suggested by Dr. Tozzer, who says:§

"I have been much perplexed by what I have long thought to be an *r* sound, possibly a sonant of the spirant. No mention of this sound is made in any of the early grammars and its presence is denied by the Mayas themselves. This sound I seem to have heard in several words written by Maya scholars with a double vowel . . . I have come to the conclusion to omit this sound from the list."

*Tozzer, 1921.

†Cf. Tozzer, *op. cit.*, p. 17.

‡Tozzer, *op. cit.*, p. 18, and Gates, 1926, p. 412.

§*Ibid.*, page 18.

194 This *r* I have heard and recorded in the same word in different
195 lists, particularly among the Tzeltal; e. g., *kere* (boy). It is rare,
occasionally confused with *l*, but quite forcible when present. It has
a short, hard trill, not unlike the Japanese, made with the forward
part of the tongue against the roof of the palate.

	Sonant	Surd	Fortis	Spirant	Nasal	Lateral	Trill
Velar.....	—	q	—	—	—	—	—
Palatal.....	—	k	k'	H	—	—	—
Alveolar.....	—	t	t'	s	n	l	—
Dorsal.....	g	—	—	x	ñ	—	r
Nasal.....	—	—	—	—	n	—	—
Dental.....	—	ts	ts'	j	—	—	—
Labial.....	b	p	pc'	c	m	—	—
Glottal.....	—	—	—	—	—	—	—

Breath, *h*. Semi-vowels, *w* and *y*.

q, the velar *k*, is formed between the back of the tongue and the soft palate. Palatal *k* is as in English. The fortis, *k'*, is made as the *k*, followed by a strong explosion of breath. The various fortis sounds may be similarly described in relation to their respective surds.

H is an intensified *h* sound, resembling the Mexican pronunciation of *x* in "Mexico," or *g* in "gente."

The dorsal *x* resembles *ch* in German "ach," but with less aspiration.

g is rather faint, as in Spanish "agua."

ñ is the *ng* in English "ring."

tc is the *ch* in English "child."

c is the *sh* in English "shoot."

The lateral *l* is accompanied by a slight breathing, giving it a thick sound.

j is pronounced as in French "jamais."

VOWELS. On comparing the vowel sounds listed here with those of other writers, it seems possible that I have made too fine distinctions. However, the new vowels were found to occur with great [124] regularity, and in several cases I was corrected by my informants [126] for changing them to the nearest approximate standard form, as, in pronouncing Yocotan *kE-* as *kü*, or the sound I have represented by *O* as *o*. Unmarked vowels have their Spanish sounds, *a* as in "pan," *e* as in "me" (not as in "metate"), *i* as in "bonita," *o* as in "lodo," but *u* is pronounced as *oo* in English "good." In addition there is a long *a* (*ā*) as in English "father," short *e* (*ē*) as in Eng-

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lish "met," short *i* (*ī*) as in English "mix," long *u* (*ū*) as *oo* in English "boot," and short *u* (*ū*) as in English "hut." *E* represents a sound between *ū* and English *er* in "water." *O* is a sound like English "or" said while holding the mouth for *u*. Diphthongs are *ai*, *oi* and *au*.

Double vowels are always to be pronounced separately, the second having a slightly shorter quantity than the first.

Accent is indicated by ' in those words in which the stress does not fall on the last syllable.

- 000 INFORMANTS. The Chontal List was taken down by Mr. William Gates from two pure-blooded Indians of Tecoluta, Tabasco. It was made at Comalcalco. Mr. Gates' spelling has been revised to accord with the other lists, as far as possible.

Two Yocotan lists were made, the first, from José Hernandez, a young Indian of San Fernando, Tabasco, at Macuspana. The second was given, together with the ethnographic information, by Lázaro Hernandez Guillermo, a man of forty or forty-five, also of San Fernando; he had a little Ladino blood on his mother's side. This man, although illiterate, was remarkably intelligent, and was by all odds the best informant that we had in the course of the trip. The list was made at leisure on board the steamer, and he was by that time thoroughly at home with us, and acquainted with our methods and wishes. He showed some, limited, ability to analyze his own grammatical forms.

- 124 The first Tzeltal list was given by Sebastiano Guzman, a Bachajon shaman, at El Encanto in Chiapas. It was supervised by Don
126 Arturo Tovilla, who was thoroughly conversant with the language.
115 The second was given, also at El Encanto, by Fidencio Morales, a Ladino house-boy from Ocosingo, who was not satisfactory. The third was taken down from Don Ciriaco Aguilar at Bachajon. Señor Aguilar had been assisting in Ethnological work for over two weeks, and spoke Tzeltal fluently. He was assisted by a volunteer committee of Indians and Ladinos.

- 000 The Chaneabal list was compiled at El Puente, near Comitán, from an Indian estimated at thirty-five years of age, called Casimiro Gomez. He was moderately satisfactory.

Two Jacalteca lists were made. The first, at Jacaltenango in Guatemala, was given by Santiago Hernandez, a middle-aged Indian of doubtful purity, with occasional help from other Indians. He was literate, fairly intelligent, and enthusiastically cooperative. The second was hastily taken down at Concepción. It was begun by Alonzo Rafael Alvebal, pure-blood, about thirty years old, who